

Banking Economics

Lecture 4

Banking Intermediation

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Second Semester, 2025/2026

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Outline, Goals, and Main Bibliography

► Outline:

1 Banking intermediation

1.1. Definition and specificity of banking intermediation

1.2. The evolution of banking systems and the European and Portuguese banking sectors

1.3. The banking sector and the SDGs

► Goals:

Characterize the activity of banking intermediation, understand its importance and its benefits for economic agents;

Describe and relate the trends that characterize the banking sector today, particularly in Portugal and Europe.

► Main Bibliography:

Casu, B., Girardone, C., & Molyneux, P. (2006). *Introduction to Banking*. FT Prentice Hall. (Chapter 2)

Matthews, K., & Thompson, J. (2005). *The Economics of Banking* (3rd ed.). John Wiley & Sons. (pages 1-21)

1.2. The evolution of banking systems and the European and Portuguese banking sectors

- ▶ In the last decades of the 20th century and the early 21st century, the banking systems of Western economies underwent profound transformations and developments.
- ▶ These changes were driven by a variety of factors and trends, which will be our subject of analysis in what remains of the first chapter.
- ▶ They all contributed to strengthening **competition** and to intense **rivalry** in the banking sector.
- ▶ More recently:
 - ❑ Global financial crisis (from 2008 onwards);
 - ❑ Sovereign debt crisis in Europe;
 - ❑ COVID-19 pandemic;
 - ❑ War in Europe and in the Middle East;
 - ❑ Escalating trade tensions.

What are the major trends that have been shaping the banking sector?

- ▶ 1) Deregulation
- ▶ 2) Financial innovation
- ▶ 3) Globalization (next class...)
- ▶ Our goal is to analyze the **forces** stemming from each of these **trends** and how these forces have been **shaping modern banking systems.**

1) Deregulation

- ▶ **Deregulation** comes in the form of the **removal of government-imposed restrictions and rules.**
- ▶ The underlying goal of the deregulation process is to **increase** banks and financial institutions **commercial freedom**, thereby promoting **innovation and competition.**
- ▶ It aims to unleash banks' ability to **innovate** and fulfil their **roles as financial intermediaries** free from **regulations' ties and burden.**

1) Deregulation (cont.)

- ▶ According to Matthews and Thompson (2005), the process of **deregulation** often unfolds in a **three-stage manner**:
 1. The **removal of quantitative controls on bank assets and the ceilings on interest rates on deposits**;
 2. **Implementation of the universal banking model: the relaxation of business specialization between banks and other financial intermediaries, allowing both parties to compete in each other's markets. Banks became permitted to engage in a wide variety of activities (e.g., repeal of the Glass-Steagall Act (1933) in 1999 that separated commercial banking from investment banking and insurance services)**;
 3. **Promoting competition from new entrants as well as increasing competition from incumbents and other** ⁶**financial intermediaries.**

The Portuguese case

- ▶ In the late 1970s:
 - ❖ The banking sector was **nationalized** (following the April 25, 1974, Revolution);
 - ❖ **All interest rates were set** by the Bank of Portugal;
 - ❖ The Bank of Portugal imposed **quantitative limits on lending/credit extension**;
 - ❖ Banks were **specialized** (commercial, savings, and investment banks);
 - ❖ There was **excess liquidity**, due to **high savings rates** and the **public-sector deficit**.

The Portuguese case (cont.)

- ▶ Main **deregulation** and **liberalization** measures in Portugal's banking sector:
 - **Creation of interbank markets**, starting in the late 1970s;
 - From 1983 onward, banking activity was **reopened to private initiative**, and **privatizations** were carried out;
 - From 1984 onward, **interest rates were gradually liberalized**—first deposit rates, and later lending rates;
 - In 1985, the **Treasury bill market was developed**, allowing the public to finance the public-sector deficit;
 - **Credit ceilings were eliminated** in 1990;
 - In 1992, the General Regime for Credit Institutions came into force, establishing the **universal banking principle** and **opening up various financial intermediation activities** to banks;
 - A sharp **reduction** in the level of **required reserves** (in 1994, the required reserve ratio was changed from 17% to 2%);
 - Revitalization of the **stock exchange**.

The result of deregulation

- ▶ Banks gained more **freedom** to operate in **diverse** markets and **segments** of the financial system, facing **fiercer competition**.
- ▶ While the banking system has been **deregulated** to **promote competition**, it has also been subjected to **stricter regulations** to ensure that banks maintain a **solid financial position** to manage the risks they face, thereby safeguarding **financial stability**.
- ▶ In this sense, **deregulation** can be seen as a process in which the focus of **regulation shifts** from **banks' competitive and commercial behavior** (what they can or cannot do) to **prudential control and supervision** (where, based on the strategic decisions each bank makes, safety measures are delineated to safeguard their stability).

2) Financial Innovation

- ▶ In the spirit of a broad definition, **financial innovation** can be thought of any **material change** in the **scope, scale and delivery** of **financial services** (Matthews and Thompson, 2005).
- ▶ **New markets** to explore, **new products**, **new methods** of **intermediating** the **channeling** of funds from savers to borrowers, and **new ways** of **delivering financial services** are often associated with this so-called process of **financial innovation**.
- ▶ But what has prompted the **introduction** of **innovation patterns** within the **financial system**, particularly in the **banking sector**?

2) Financial Innovation (cont.)

- ▶ Some authors often identify **three central forces** that have been actively contributing to the **dynamism** of the **financial innovation** process:
 - a) **Instability of the financial environment** (financial volatility increases the demand for new instruments to hedge against the risks it creates);
 - b) **Regulation** (regulatory arbitrage; innovations designed to bypass regulations);
 - c) **The development of technology in the financial sector** (technological development has enabled the creation of a wide range of banking products (e.g., credit cards, ATMs, online payments) and facilitated cost reductions).

These **three forces** (financial instability, regulation and technology) put **pressure on banks to innovate**.

2) Financial Innovation (cont.)

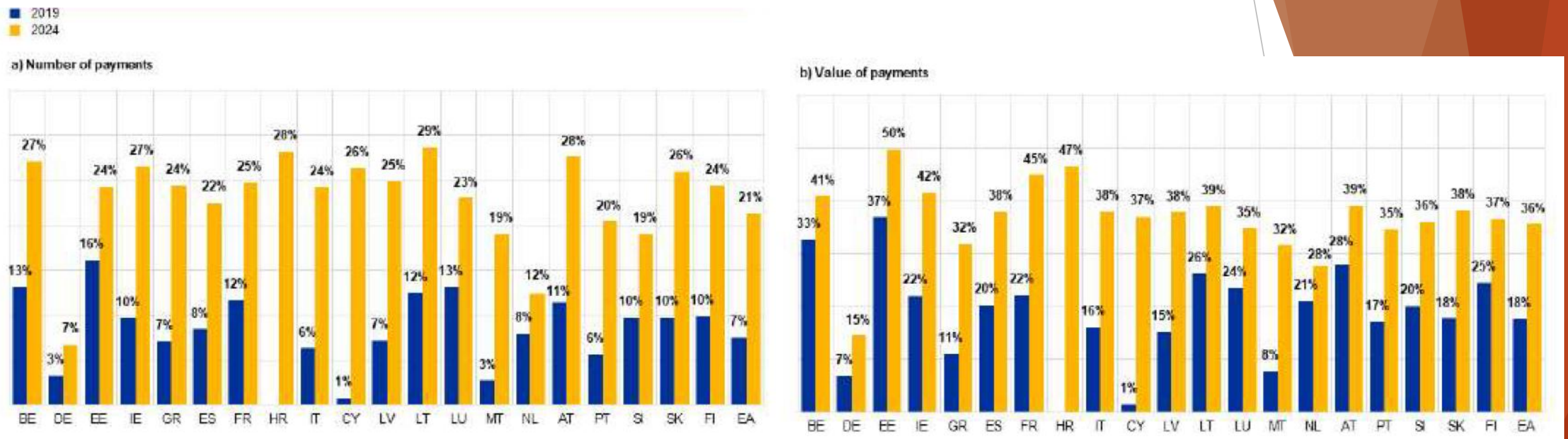


Figure 1. Share of online payments in consumers' day-to-day payments, breakdown by country, 2019-2024. **Source:** ECB (2024, p. 12).

2) Financial Innovation (cont.)

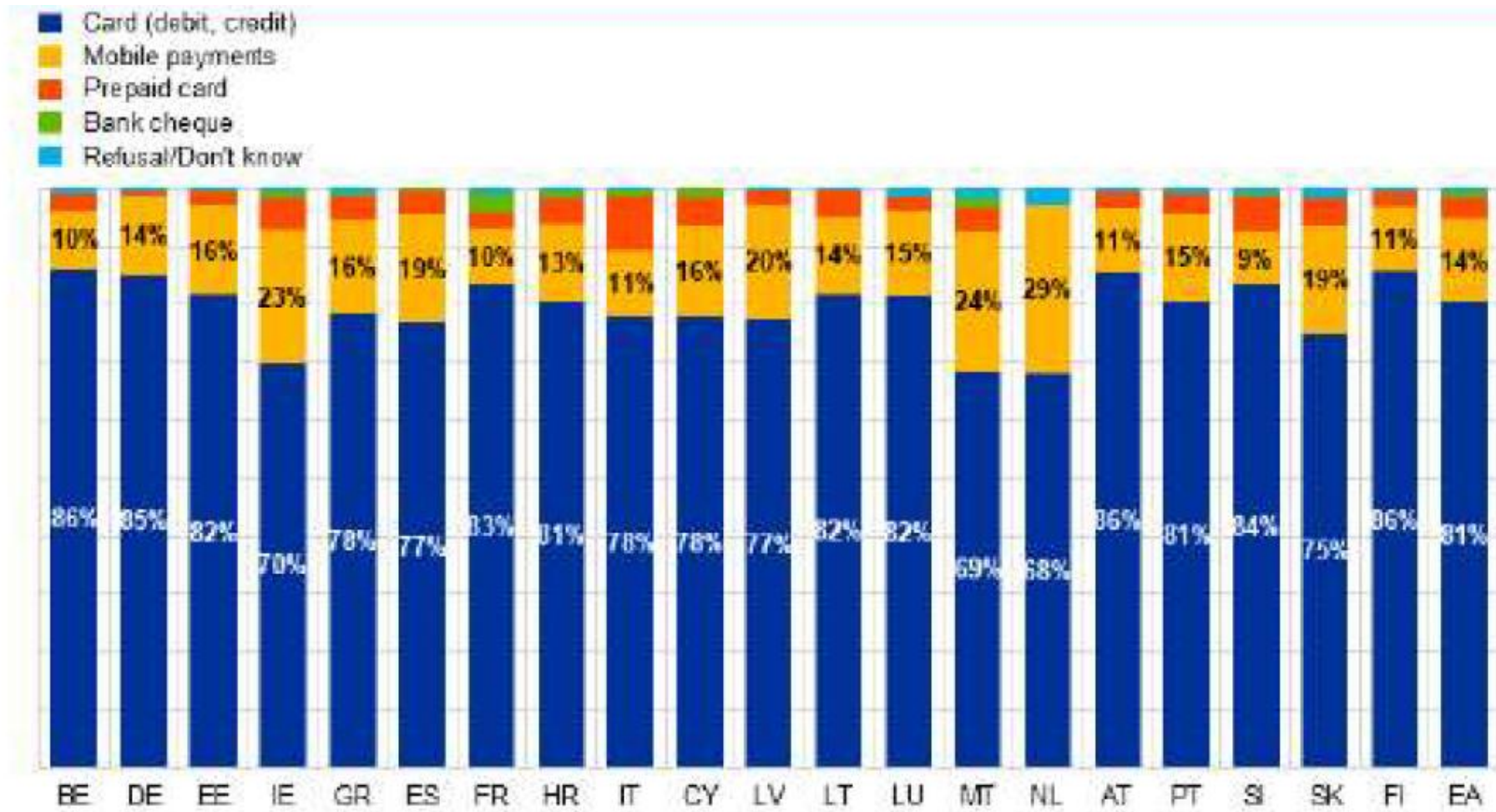


Figure 2. Preferences for cashless payments in shops, breakdown by country.
Source: ECB (2024, p. 46).

2) Financial Innovation (cont.)

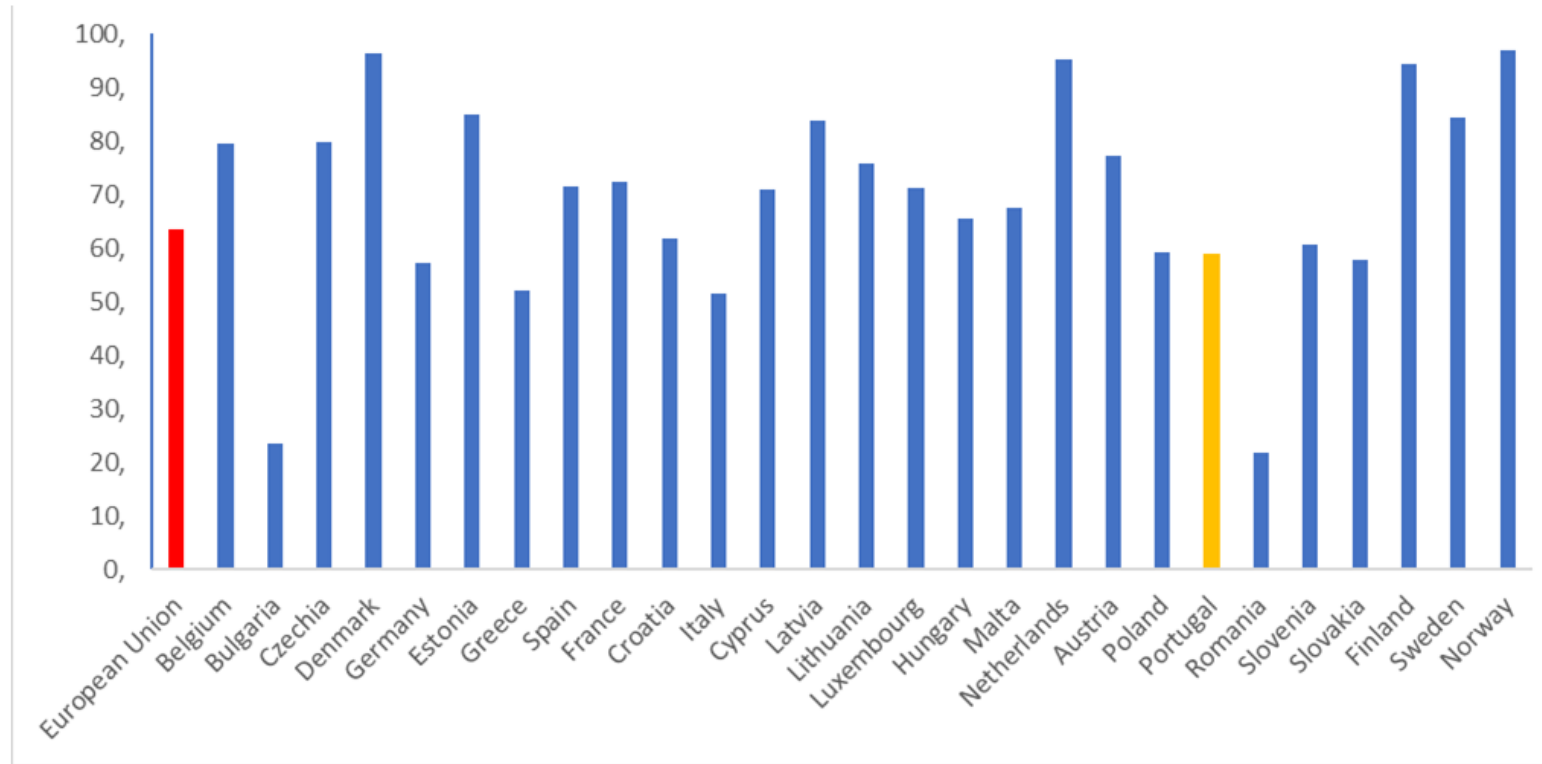


Figure 3. Percentage of individuals using the internet for online banking in 2023 across European countries. **Source:** Eurostat.

Furthermore, according to Eurostat, **38%** of individuals in the EU used **online banking** in **2012**. By **2023**, this percentage had **increased** to **64%**.

2) Financial Innovation (cont.)

- ▶ The trend in payments, intensified by the COVID-19 pandemic, is toward increasingly widespread use of digital payments.
- ▶ Several emerging trends, issues and challenges are worth mentioning and discussing briefly, as they are likely to impact banking systems:
 - Fintech;
 - Cryptocurrencies;
 - Central Bank Digital Currencies.

Fintech

- ▶ Companies that offer **innovative financial services** by applying **new technologies** and using the **internet**.
- ▶ They are typically **startups** that provide **services** designed to **exploit shortcomings** in the way **traditional intermediaries** operate.
- ▶ They bring **greater convenience** in **accessing financial services** (such as payment services, investment services, lending, and capital raising) through **online platforms**.
- ▶ The term also covers the **technologies** themselves as applied to financial services, whether used by these firms or by traditional participants in the financial system, such as banks and payment institutions.
- ▶ They use **Big Data** (databases and computational algorithms) that make it possible to **better understand** customers' profiles (for example, those to whom bank credit has been granted). Fintech firms can then steer customers toward the **best offers** and **terms**, introducing **additional competition**.

Fintech (cont.)

(estimated number of entities by year of formation)

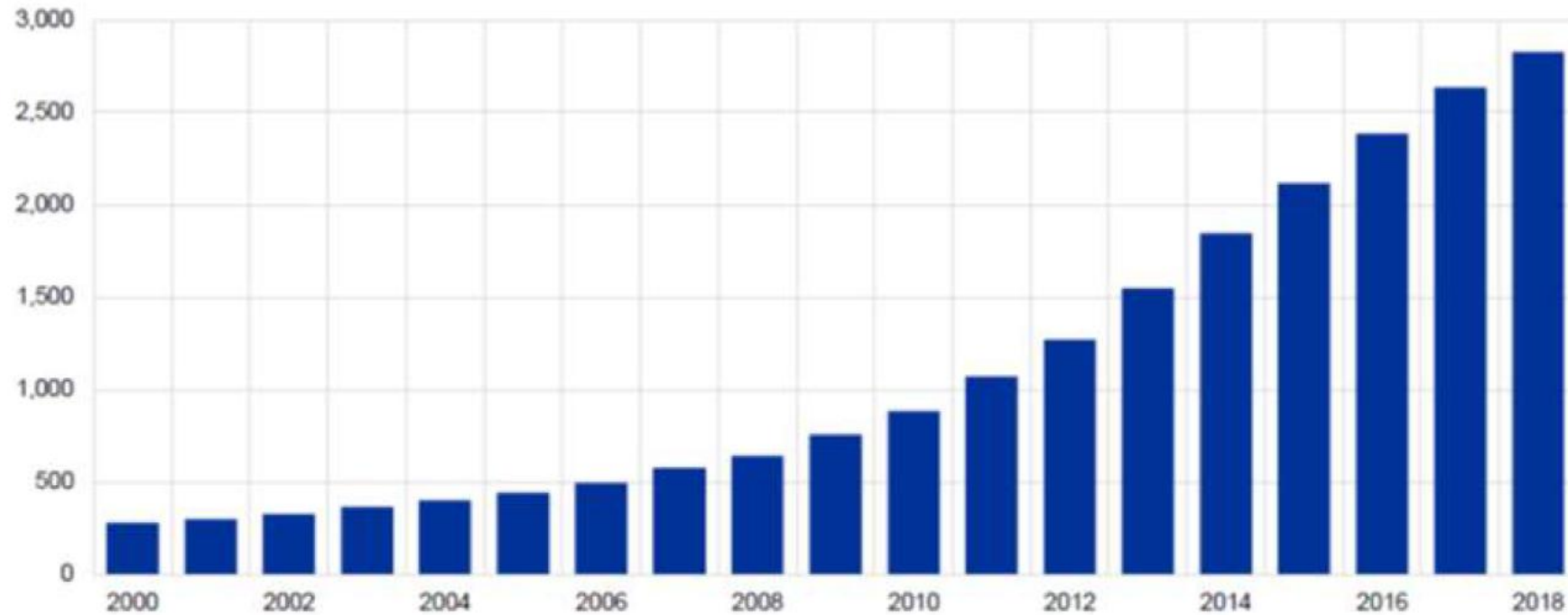


Figure 4. Fintech companies in the Euro Area.
Source: ECB (2020, p. 50).

Cryptocurrencies

- ▶ **Digital or virtual currencies** that use cryptography for security. They operate on decentralized networks based on blockchain technology, which ensures transparency and immutability of transactions.
- ▶ **Advantages:** decentralization, lower transactions fees, transparency, accessibility, etc.
- ▶ **Disadvantages:** volatility, scalability issues, environmental impact, regulatory uncertainty, etc.
- ▶ **Do cryptocurrencies fulfill the functions of money?** (medium of exchange, store of value, unit of account)

Cryptocurrencies (cont.)



Figure 5. Euro/US Dollar (EUR/USD) and Bitcoin/ US Dollar (BTC/USD).
Source: Investing.com, accessed on February 17, 2026.

Central Bank Digital Currencies

- ▶ “A CBDC is **virtual money backed** and **issued** by a **central bank**. As money and payments have become more digital, the world’s **central banks** have realized that they need to provide a public option—or let the future of money pass them by.” (Atlantic Council, 2026).
- ▶ The **development** of a CBDC has been a subject of **extensive discussion** and **appears increasingly likely** in the **near future**, with **major Central Banks** actively exploring this possibility.
 - What will be the **architecture** of the new type of currency?
 - Which **institutions** can operate with it, and how will the **public** interact with it?
 - Regarding **security**, how will cyber risks be managed?
 - How **reliable** and **fast** will transactions be?
 - What measures will be in place to **prevent** the use of CBDCs in **illegal activities** such as terrorism financing and money laundering?
 - Will there be a **digital record** to trace transactions?
 - How will the existence of CBDCs influence or alter the **transmission of monetary policy** and the **stability** of the **financial sector**?
 - Should holding CBDCs be **remunerated**, and what will be the role of **banks** in a CBDC system?

2) Financial Innovation (cont.)

- ▶ However, the diffusion of financial innovation can be hindered or delayed by several factors, including low levels of financial literacy among the population and resistance to adopting digital banking solutions. These challenges can exacerbate financial exclusion.

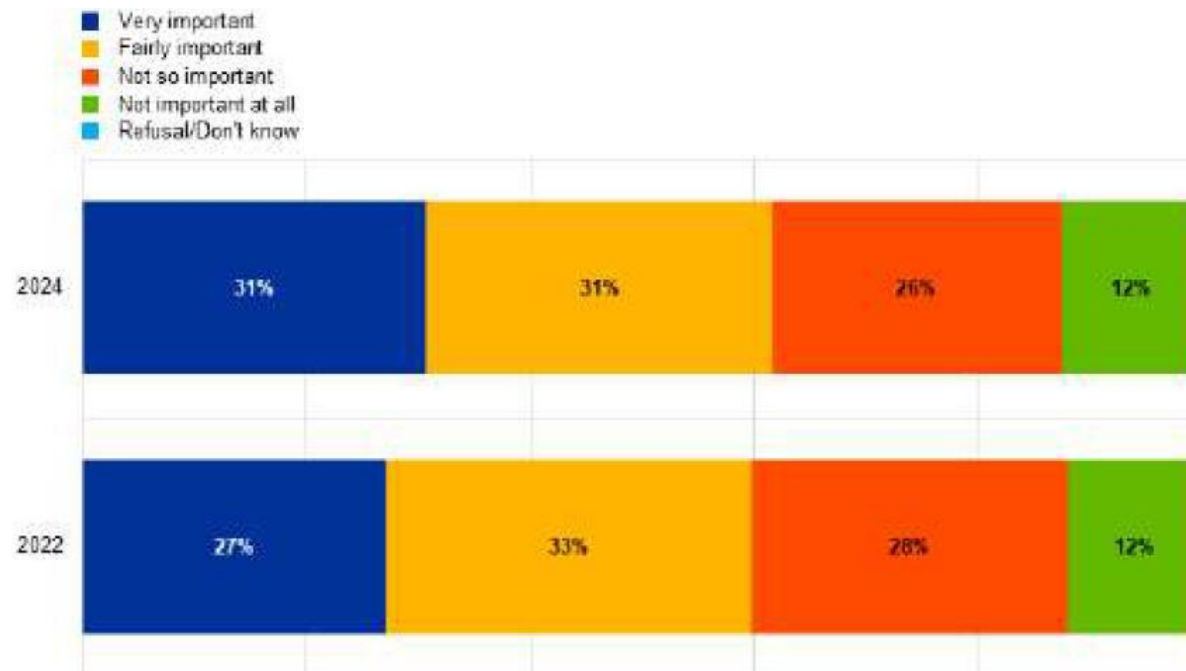


Figure 7. The importance of having the option to pay with cash, euro area 2022-2024. Source: ECB (2024, p. 40).

Secondary Bibliography

- ▶ Atlantic Council CBDC Tracker (<https://www.atlanticcouncil.org/cbdctracker>);
- ▶ CBDC Tracker website (<https://cbdctracker.org>);
- ▶ ECB. (2020). *Financial integration and structure in the euro area*. Available at: <https://www.ecb.europa.eu/press/fie/pdf/ecb.fie202003~197074785e.en.pdf>;
- ▶ ECB. (2024). *Study on the payment attitudes of consumers in the euro area (SPACE) - 2024*. Available at: https://www.ecb.europa.eu/stats/ecb_surveys/space/shared/pdf/ecb.space2024~19d46f0f17.en.pdf;
- ▶ Eurostat website (<https://ec.europa.eu/eurostat>);
- ▶ Investing.com website (<https://investing.com>).